

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/012884

A. CLASSIFICATION OF SUBJECT MATTER  
**C21D8/02 (2006.01)**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

**C21D8/02 (2006.01), C21D1/30 (2006.01), C21D6/00 (2006.01),  
C22C38/00 (2006.01), C22C38/06 (2006.01), C22C38/58 (2006.01)**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005  
Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E, X	JP 2005-232562 A (JFE Suchiru Kabushiki Kaisha), 02 September, 2005 (02.09.05), Claims (Family: none)	1-5
X Y	JP 3015923 B2 (Nippon Steel Corp.), 24 December, 1999 (24.12.99), Claims; tables 1 to 3; Nos. 1, 6 (Family: none)	1, 3-5 2, 6
Y	JP 10-96042 A (Sumitomo Metal Industries, Ltd.), 14 April, 1998 (14.04.98), Claims; Par. No. [0055] (Family: none)	2

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier application or patent but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed
- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*&\* document member of the same patent family

Date of the actual completion of the international search  
**07 October, 2005 (07.10.05)**Date of mailing of the international search report  
**25 October, 2005 (25.10.05)**Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/012884

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 4-297547 A (Nippon Steel Corp.), 21 October, 1992 (21.10.92), Claims; Par. Nos. [0009], [0010] (Family: none)	6
A	JP 3-68715 A (Nippon Steel Corp.), 25 March, 1991 (25.03.91), Claims; page 3, lower left column, lines 12 to 14 (Family: none)	1-6